approach

FEBRUARY 1981 THE NAVAL AVIATION SAFETY REVIEW

Preoccupation

THE takeoff, departure, and en route phases of the flight were normal for the two A-4s and the AV-8. ACM was to be conducted in an operating area which was on the MCAS 070 radial at a distance of 60-80 nm. Visibility in the area was unrestricted above 8,000 feet. Below the broken cloud deck at 8,000 feet, visibility was 5 miles in haze.

Upon arrival in the operating area, the A-4 wingman's TACAN had intermittent DME beyond 60 miles, and the AV-8 had no TACAN lock, leaving only the lead A-4 with good azimuth and DME. The ACM portion of the flight was conducted normally, and after about 45 minutes of airborne time, the A-4 wingman called for Bingo. The ACM was promptly terminated and a join-up initiated. Following join-up, which took several moments, the flight leader established what he thought was a heading of 240 degrees. His TACAN needle was on the nose of the aircraft and indicated the flight to be on the MCAS 070 radial at a distance of 67 nm.

During and shortly after join-up, all pilots were preoccupied with frequency changes and checkout procedures. The A-4 wingman noted the flight heading as 160 degrees but, not being totally familiar with the area, assumed that lead was arcing the aircraft for an approach to Runway 5 at homebase. The AV-8 wingman did not note the heading. With inflight visibility reduced and a broken deck of clouds below the flight, normal visual aids for navigation were not available. The flight had switched to Approach Control and advised that they were inbound on the 070 radial at 67 nm, but because of the distance, Approach radar was unable to get a reliable fix on the aircraft. The flight was advised to continue and report at 30 miles.

Approximately 5 minutes after the rendezvous, the flight leader noted that his DME had increased to 77 nm. The A-4 wingman got a momentary lock on DME indicating 75 miles. A quick check with each wingman by the flight leader verified a heading of 160 degrees vice 240 degrees. Lead now realized that his gyro had precessed 80 degrees. After a few moments, the flight was able to determine that they were 70 miles southeast of the MCAS. The flight then turned to a heading which would take them directly to the field.

At this point, the AV-8 pilot checked his fuel at 1,100 pounds, and realizing that it would be marginal to try and make the MCAS, he initiated a Bingo profile.

MCAS Approach Control was able to pick up the A-4s on radar but was unable to acquire the *Harrier*, which was now separated from the flight and experiencing garble and clutter on both UHF and FM. The A-4s still had visual contact with the AV-8, however, and utilizing FM, the flight leader was able to get all three aircraft communicating on a common, clear UHF frequency. Approach then advised the AV-8 of the availability of a nearby outlying field. The *Harrier* pilot decided that was for him, and using radar vectors from the A-4s, he was able to penetrate the cloud layer and effect a safe landing at that field. The *Harrier* had about 300 pounds of fuel left upon landing.

After the AV-8 pilot had the outlying field in sight, the A-4 wingman advised the flight leader that he had only about 1,000 pounds of fuel left and would be close to or at emergency fuel upon reaching the MCAS. The flight leader declared emergency fuel for the flight and the aircraft received expeditious handling for landing. The wingman had 800 pounds of fuel remaining on touchdown; the flight leader had 1,000 pounds.

Fortunately, this incident ended with all three aircraft safely on the deck, but the safety margin had been reduced to the point where certainly one, and possibly all three aircraft, could have been lost. There are a couple of important lessons to be learned from this incident:

- A precessed gyro, particularly after hard maneuvering, is not unusual, although it can be insidious. It behooves all pilots to be aware of this possibility and crosscheck with other instruments or other aircraft in a timely manner.
- In situations where there are little or no ground references for navigation and no radar coverage is available, wingmen have a responsibility to doublecheck navigation and not rely solely on the flight leader.

This incident clearly demonstrates how easy it is for an experienced naval aviator to become preoccupied with certain procedures and, in so doing, overlook others. In this case, the flight leader's preoccupation was brief enough to allow for corrective action to be taken. Had a little more time elapsed . . . ◄

Vol. 26 No. 8

approach

NAVAIR 00-75-510

Blake Rader painted the S-3A Viking laying a sonobuoy pattern for this month's APPROACH cover.

Chances are your squadron or wing recently completed its big New Year's, back-in-the-saddle, safety standdown. Hopefully, its good points are still fresh in your mind. But you probably can still remember its weak points, as well. You still may be curious about why the room seemed so much emptier for the afternoon session. If you were one of its planners or lecturers, you still could be a bit miffed about the decibel level of the snores in the auditorium. If you are in the operations or maintenance department, you may have secretly reveled in the limited success of the standdown, but as the following article points out, it was your failure, too.

Even if your standdown went off well, it will require some changes and updates to be as well received the next time around. The article below is just what you need to replace or retouch your unit's safety standdown with some interesting and important matter. To do this right will take some time, however, and that is why we publish the article now – months ahead of when your next standdown is likely to be scheduled, but while the shortcomings of your last standdown are clear in your mind.

STANDDOWNS

By LCDR James E. Novitzki
Aviation Safety Programs
Naval Postgraduate School

PREPARING for a safety standdown is not a one-man job. In fact, it is not even a one-department job. The safety officer is the safety expert, but he is not required to be and should not try to be an expert in all aspects of running, operating, and scheduling the maintenance and operations department. That is why there are maintenance and operations officers. For the standdown to do the job it was designed to do, personnel from the operations and maintenance, as well as safety, departments must be involved with the planning, organizing, and actual presentation of the program.

What does the maintenance officer see as problems? What does he think can be done about them and by whom? Use these personnel to discuss the problems, be they QA or corrosion control, FOD or tool control. Set up presentations in shops rather than in the theatre. The result will be that personnel are more likely to get involved, ask questions, and retain what happened at that presentation. It requires more effort and planning, but it produces greater results.

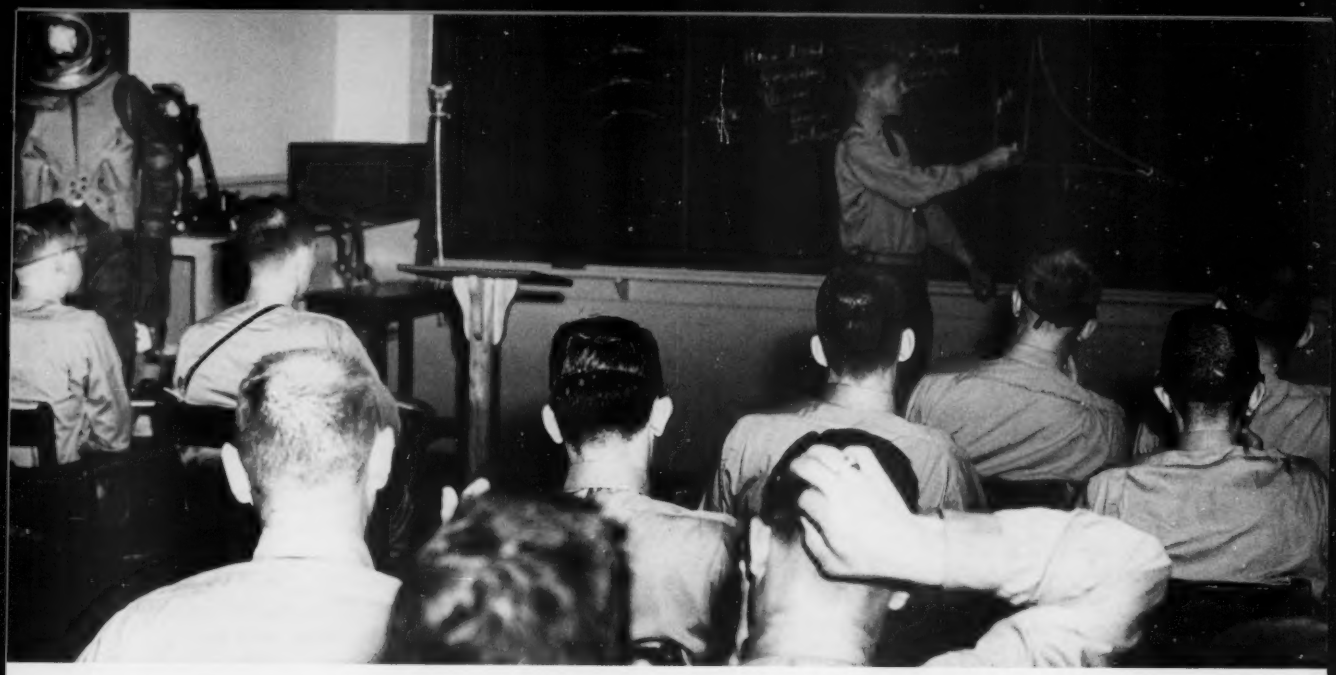
The same goes for the operations officer. If he sees a problem, let him talk about why it exists and what can be done. The CO, too, must play an active part both on the level of the flightcrews and maintenancemen. If you must, prepare a presentation for him, then ensure that he goes to the shops and talks to the men in a personal way, with a safety emphasis. This does a lot to emphasize the points that safety is important to the CO and that *every* man has a part to play in safety.

The safety officer should then act as manager and producer of the ultimate project – the standdown. As such, he can give direction and make suggestions, but he should let the experts in their specific areas decide what should be covered by whom, how, and in what departments. Then the safety officer, acting like a conductor, ensures that all these parts mesh into a smoothly run program that results in higher safety awareness. The program should motivate personnel to perform their jobs the right way and to watch to make sure that others are doing their jobs safely. Impress upon them that safety is not a one-man job but an all-hands effort.

The safety officer has a wide variety of resources available, both for ideas and aids. Look at these, and with thought, you probably can add more.

★ Idea information

- Operations officer, maintenance officer, commanding officer.
- Naval Safety Center publications (APPROACH, Weekly Summary, MECH, message safety bulletins, etc.).
- Reviews of recent Mishap Reports.
- Your Safety Center analyst. What are the accident trends for your type aircraft? What causes mishaps, both pilot



Where to go for help

and maintenance related?

- Other squadrons on your base. Are they having the same problems or not? What problems do they have that you don't yet have?
- The functional wing on the other coast. See if they have the same or different problems.
- CAG and ship safety officers. They provide ideas about the shipboard environment as well as problems with interacting aircraft.
- Anymouse or Hazard Reports, and the results of the last safety survey.

All of these can produce ideas of things to be covered at a standdown that are relevant to the command and its mission.

★ Training aids available

- Films
  - ▲ At the end of this article, there is a listing of various safety films available from both military and non-DOD activities, with addresses for all.
  - ▲ The Modern Talking Picture Service, Inc.
    A wide series of general safety films that can be borrowed at no charge to safety officers using them for safety education. Free catalogs available.
  - ▲ Write the U. S. Army Safety Center at Fort Rucker, AL 36362, for their Safety Training Film Catalog which was updated in JAN '80 and contains descriptions of films and year made. The list includes Army, Navy, Air Force, and Coast Guard films and is an excellent source.
- Prepared Video Tapes/Slides
  - ▲ Contact the local base film or audiovisual library and see what's available.
  - ▲ For general safety or maintenance problems, check with the audiovisual personnel at local Air Force bases, as they usually have excellent video tapes on a wide variety of subjects.
  - ▲ Slides and ideas about slide presentations can be obtained from the Naval Safety Center. It has programs that are excellent for standdowns on malpractice in maintenance and other areas. (Contact your analyst.)
  - ▲ Hazard Awareness Kits (HAWKits) (slide/tape presentations) are available from the Naval Educational Training Support Center, Atlantic or Pacific. A list of subjects available and the addresses are contained at the end of this article.
- Guest Speakers
  - ▲ For combined squadron/wing groups (examples below are not the only speakers available): Continued

- CAPT Frank Dully, CNAP Medical Officer, "Sex and The Naval Aviator."
- Russ Bomberger, Professor at the Safety School, "Stamps and Strokes."
- Your analyst from the Naval Safety Center.
- Maintenance specialists from the Naval Safety Center.
- Maj Jack Cress, Professor at the Safety School, Helo Aerodynamics.
- Dr. John Kennedy, Professor at the Safety School, Aeromedical Support.

▲ For individual squadrons:

- Drive-safe and/or alcohol lectures from the highway patrol.
- Speakers from the aircraft manufacturer.
- Your sister squadron's safety officer or the wing safety officer, if a good speaker.
- Vehicle accident victim, from within your squadron, telling what happened.
- Pilot describing what happened during mishap or close call, and then a few "what if" questions.

★ **Self-produced Training Aids/Materials**

- Don't forget to consider producing your own materials for presentations. Most bases have some video tape capability, and the use of tapes to create graphic impact can have a significant effect on all personnel.
- If there is an accident of a type that appears to be pilot error, run through the sequence of events in the WST, if available. Then show what should have been done and why. This can lead to controversy and discussion. It is extremely useful to stop action and point out events as they happen.
- If there are hazards in the squadron, show them. Simulate accidents and show the potential results of not paying attention to the risks in everyday squadron evolutions. The presentations may not be of professional quality, but the relationship to the squadron and applicability will more than make up for the deficiencies.

★ **Safety Data**

- Naval Safety Center, NAS Norfolk, VA 23511.
- National Safety Council. Posters, information on general safety, driving safety, and industrial safety. Excellent source of material. Your squadron can join for about $50 per year. For information, write to:

  National Safety Council
  425 N. Michigan Avenue
  Chicago, IL 60611

- U. S. Army Safety Center, Ft. Rucker, AL 36362. A wealth of information about helos and different approaches for many safety problems. Posters, statistics, Weekly Flight FAX (like Weekly Summary). Good publication on the FOD problem in helos and some ideas to combat it. Also available, a 52-lecture guide of safety lectures, many of which could be easily used in Navy squadrons.
- U.S.A.F. Inspection and Safety Center, Norton AFB, CA 92409. Several publications, posters, and statistics about aircraft and maintenance related problems. Information is usually divided into TACAIR, SAC, and MAC.
- NTSB, Washington, DC 20594. Statistical data on types of mishaps and reports on civilian accidents.

The point of all this is to raise peoples' awareness of safety and to highlight problem areas. To do this effectively requires a gimmick or showmanship. Anything you can do that makes it different and unusual will help to make it memorable. The third time the pilots see "Accident on the Way to Happening," it will have little effect or value. Also, a lecture by an inept third class discussing survival gear won't have the desired effect. If you use anything new, preview it and listen to the presentation. If it isn't what you want, don't use it just to fill up hours.

A short, hard-hitting presentation is often more effective than a 3-hour lecture. For example, a tape showing a flight of A-7s on a bombing mission and then the wingman driving it into the ground, with a few comments, has more impact than 30 minutes of "do this!" to avoid target fixation.

The key is to find things that relate to your unit and present them in a manner that relates to your audience. Arctic survival lectures while deployed at Cubi, no matter how well presented, probably will not be well received. Producing a set of Hazard Reports that indicate several aircraft were almost lost and damaged, and ending with the comment that the last was an aircraft in your squadron, does much to generate interest and show personnel how these things relate to them.

Communication up and down the chain of command is another critical item in any squadron's safety program. The accompanying questionnaire could be circulated to find out just how well the squadron safety program is communicating its message. The results can be used as a basis for presentations in your next standdown, to correct any deficiencies.

Be creative. Do what you can that is different, new, and has real impact.

APPROACH (USPS 016-510) is a monthly publication published by Commander, Naval Safety Center, Norfolk, VA 23511. Subscription price is $15.00 per year; $3.75 additional for foreign mailing. Subscription requests should be directed to: Superintendent of Documents, Government Printing Office, Washington, DC 20402. Controlled circulation postage paid at Norfolk, VA.

SAFETY STANDDOWN QUESTIONNAIRE

Safety awareness and mishap prevention must rely on many sources of information. One source that is extremely valuable to us is *your input.* This questionnaire serves that purpose and is intended to aid in improving safety awareness and accident prevention efforts in our command. Information submitted will not be used for any purpose other than mishap prevention. Do not sign your questionnaire.

1. Do you think the safety program in our squadron is effective, or is it merely something that lip-service is paid to?
2. What is the role of the squadron?
3. Have you been made aware of the importance of your job to the squadron?
4. Who is your shop safety petty officer?
5. Is there an Enlisted Safety Council in our squadron? If so, do you see the results of its meetings?
6. List one pet peeve concerning day-to-day routine.
7. Has your morale ever been so low that you made a stupid mistake and then realized it? Please discuss.
8. List the safety equipment you use in your job.
9. Do you routinely use the proper safety equipment (safety shoes, life vests, ear protectors, safety glasses, gloves, etc.)?
   If not, why not?
10. Do you think sufficient effort is devoted to keep safety equipment in the proper condition? What is your opinion of your safety equipment?
11. Were you adequately prepared to work in a shipboard/aviation environment? Explain type of training received.
12. Was your professional/technical training adequate before coming aboard?
13. Do you know **all** of the escape routes out of your berthing area **and** shop?
14. Have you been kept informed of ship/squadron policy, schedule, and general info?
15. Does an effective means exist to report a hazardous condition? If so, what is that method?
16. List the two most serious safety hazards that exist in your work area.
    a. Unsafe condition
    b. Unsafe practice
17. Discuss or mention any other item you wish on this page and return it to your shop safety petty officer or the safety officer.

SAFETY FILMS

MN-8270-AL	Aircraft Accident Investigation
MN-8366-A	Aircraft Accident Prevention — Ground Accidents
MN-8983	Roll Rate Restrictions
MC-8991-A	Approaching the Speed of Sound
MC-10454	Boomerang (FOD)
MN-9480-A	Vision in Military Aviation — Sense of Sight
MN-9480-B	Vision in Military Aviation -- Illusions
MN-9480-C	Vision in Military Aviation — Inflight Recognition and Closure
MN-9480-D	Vision in Military Aviation — Errors in Vision
MN-9797	Human Disorientation — Experimental Rotating Environments
MN-9929-B	Aviation Physiology — "Fit to Fly"
MN-9971	Doctor on the Flight Deck
MN-10003-A	Navy Aviation Safety Program: Safety Is Your Business
MN-10003-B	Naval Aviation Safety Program: The Big Payoff

Continued

MN-10003-C	Naval Aviation Safety Program: The Oblong Window
MN-10745	Disasters Don't Just Happen
MN-11227	Man From Lox
MN-11375	Accident on the Way to Happening
MV-10537	A Night on Jack Rabbit Mesa
MV-10704	Ejection Vectors
NASA HQs-112	Hazards of Tire Hydroplaning to Aircraft Operation
NASA L957	Hazards of Tire Hydroplaning – A Sequel
NASA 5887	Tire Hydroplaning
SFP-1555	How to Stage a Disaster (Ordnance)
TF-1-5343	Aircraft Accident Investigation Board Part I
TF-1-5343	Aircraft Accident Investigation Board Part II
MN-360-B	Aerodynamics – Theory of Flight
MN-10871	At High Angle-of-Attack Characteristics
MN-8901	Structural Fatigue and Aircraft Service
MN-8617	Slow Speed Flight Characteristics of Swept Wing Aircraft
TF-462210	Advanced Helicopter Flight Principles – Part I
TF-462211	Advanced Helicopter Flight Principles – Part II
TF-463455	Lessons Learned From Aircraft Accidents – Fuel Exhaustion
TF-463488	Lessons Learned From Aircraft Accidents – Emotions
TF-463768	Lessons Learned From Aircraft Accidents – Know Your Aircraft
TF-468906	Helicopter – Vibrations & Resonance – Part IV – Ground Resonance
MISC. 58	Six on Six
MA-9559	First Aid – Part 4 – Resuscitation – Mouth-to-Mouth, Mouth-to-Nose
MN-8188-B	First Aid for All Hands – Asphyxia
MN-8414-A	Naval Aviation – Personal History – The Weapon Is Conceived
MN-8414-B	Naval Aviation – Personal History – The Weapon Is Tested
MN-8414-C	Naval Aviation – Personal History – The Weapon Is Developed
ME-5471	Placing the Right Man on the Job
MN-9994	VD Control – Leadership Responsibility
MN-10198-A	Hygiene for Men – You As a Male
MN-10198-B	Hygiene for Men – The Decision Is Yours
PAT-004	Patterns of Management
STY-001	Styles of Leadership
GEL-001	Strategy for Productive Behavior (Introduction)
GEL-002	Motivation Through Job Enrichment (Herzeberg)
GEL-003	The Self-Motivated Achiever (McClelland)
GEL-004	Understanding Motivation (Gellerman)
GEL-005	Theory X and Theory Y: The Work of Douglas McGregor (Beckhard, Bennis & Jones) Part I
GEL-006	Theory X and Theory Y: The Work of Douglas McGregor (Beckhard, Bennis & Jones) Part 2
GEL-007	Human Nature & Organizational Realities (Argyris)
GEL-008	The Management of Human Assets (Likert)
GEL-009	Motivation in Perspective (Conclusion)
EFF-005	Effective Executive Series – Managing Time
EFF-006	Effective Executive Series – What Can I Contribute?
EFF-007	Effective Executive Series – Focus on Tomorrow
EFF-008	Effective Executive Series – Effective Decision
EFF-009	Effective Executive Series – Staffing for Strength
MN-10509	A Sense of Responsibility
MC-1147	The Dryden File
MBO-001	Focus the Future (1 of 6 Films in The John Humble "Management by Objectives" Series)
MBO-002	Management by Objectives
MBO-003	Defining the Manager's Job
MBO-004	Performance and Potential Review
MBO-005	Management Training
MBO-006	Colt – A Case History
MN-10494	Trip to Where
ALc – 001	The Alcoholism Film
MN-9707	Human Disorientation in Rotating Environment
MN-11092-A	Lightning & Precipitation Static – Causes & Effects on Aircraft – Flash and Glow
MN-11092-B	Lightning & Precipitation Static – Causes & Effects on Aircraft – Damage & Protection
MN-11092-C	Lightning & Precipitation Static – Causes & Effects on Aircraft – Research, Development, & Testing
MN-11092-D	Lightning & Precipitation Static – Causes & Effects on Aircraft – Future Aircraft Design Problems

MC-8205	All I Need Is a Conference
MN-8990	115 Volts – Deadly Shipmates
CHE-001	Chemical Booby Traps
MV-11164	Cycle Logic – Cycle Safety
YOU-006	You and Office Safety
MN-10668	You Gotta Think About It
Misc. 55	Future Shock
MC-9255	Day in Court (Types of Traffic Offenders on Trial)
MC-6962KA	Expert Rider (Procedures for Safe Operation of Motorcycles)
MC-10949	Eye Safety, Straight Talk on (Blinded Man's Recount on Protective Eye Devices)
MN-11631	Heat Stress Monster
MC-11166	In a Fire – Seconds Count
MC-11233A	Motorcycle, Background to the
MC-11233B	Motorcycle, Natural Forces and the
MC-11233C	Motorcycle, Operation of the
MD-6962JR	So Long Pal (Effects of Drinking on Driving)

MC, MD, MN, and MV denote Navy films.
SFP and MBO denote Air Force films.
MA, TF, ALc, CHE, and YOU denote Army films.
NASA denotes NASA films.
All others should be ordered from Modern Talking Picture Service, Inc.

Order films from:

Army

Audiovisual Support Center
Fort Eustis
Newport News, Virginia 23604

Navy

Commanding Officer
Naval Education and Training Support Center, Atlantic (Code N-5)
Naval Station
Norfolk, Virginia 23511

Commanding Officer
Naval Education and Training Support Center, Pacific (Code N-5)
San Diego, CA 92132

Air Force

U. S. Air Force
Central Audiovisual Library
Aerospace Audiovisual Service
Norton Air Force Base, CA 92409

FAA and General

Modern Talking Picture Service, Inc.
5000 Park Street North
St. Petersburg, Florida 38709
(813) 541-6661

NASA

See accompanying table

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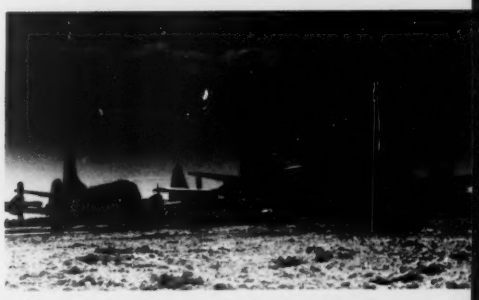


For NASA Films

If you live in:	Write To:
Alaska* California Idaho Montana Oregon Washington Wyoming	NASA Ames Research Center Public Affairs Office Moffett Field, CA 94035
Connecticut Maine Massachusetts New Hampshire New York Rhode Island Vermont	NASA Electronics Research Center Educational Programs Office Cambridge, MA 02139
Alabama Arkansas Louisiana Mississippi Missouri Tennessee	NASA George C. Marshall Space Flight Center Public Affairs Office Marshall Space Flight Center, AL 35812
Delaware District of Columbia Maryland New Jersey Pennsylvania West Virginia	NASA Goddard Space Flight Center Photographic Branch Code 253 Greenbelt, MD 20771

*Alaska requesters may also obtain NASA films from Department of Audio-Visual Education, University of Alaska, College, Alaska 99701.

FAA Films

	General Aviation Oriented -- But Excellent Production
10318	Silver Eagle: Master of the Skies (Through nostalgia and good humor, the importance of aeromedical good habits are covered.)
11112	All It Takes Is Once (Preoccupation with personal problems or distractions as flight hazards.)
11118	Caution: Wake Turbulence
11123	Disorientation
11133	Hypoxia
11136	Kites to Capsules (Short, humorous history of flight.)
11137	Low Level Wind Shear
11142	Path to Safety (Human error and misjudgement in accidents.)
11145	RX for Flight (Drugs, smoking, etc. Their impact on flight.)
11150	Stalling for Safety (How stalls occur. Warning signs.)
11155	Meteorology (Ice formation on aircraft.)
11156	Meteorology (Advection fog and ground fog.)
11157	Meteorology (Upslope fog and frontal fog.)
11158	Meteorology (Cold front.)
11159	Meteorology (Warm front.)

For FAA and General Safety Films write:
Modern Talking Picture Service, Inc.

Florida Georgia Puerto Rico Virgin Islands	NASA John F. Kennedy Space Center Code IS-DOC-2 Kennedy Space Center, FL 32899
Kentucky North Carolina South Carolina Virginia	NASA Langley Research Center Langley Station Public Affairs Office Mail Stop 154 Hampton, VA 23365
Illinois Indiana Iowa Michigan Minnesota Ohio Wisconsin	NASA Lewis Research Center Office of Educational Services 21000 Brookpark Road Cleveland, OH 44135
Colorado Kansas Nebraska New Mexico North Dakota Oklahoma South Dakota Texas	NASA Manned Spacecraft Center Photographic Technical Lab. AV Branch CODE BL-6 Houston, TX 77058

Requesters in Hawaii may obtain prints from State Department of Education, Audio-Visual Center, 4211 Waialae Avenue, Honolulu, Hawaii 96816.

Current HAWKits

1. Damage Control (5-7500013)
2. Deck Seamanship (5-7500032)
3. Engineering Hazards (5-7500033)
4. Magazine Sprinkler System (5-7600019)
5. Shipboard Hazard Items (5-7700013)
6. General Electrical Safety (5-7700014)
7. Ships' Boats (5-7700024)
8. Engineering Fire Room (5-7800025)
9. Engineering Engine Room (5-7800004)
10. Shipyard Hazards (N-63393-79-0001)
11. Working Aloft (5-7800008)
12. Ground Support Equipment (N-63393-79-0002)
13. Firewatch (N63393-79-0005)
14. Seatbelt Safety (N63393-79-0002A)
15. NATOPS Introduction (N63393-79-0003)
16. Aircraft Handling Ashore (N63393-79-0004)
17. Working Over the Side (N63393-80-0001)
18. Flight Deck (N63393-80-0001A)
19. Submarine – Helo Transfer (N63393-80-0002)
20. Driver Improvement (6 units) (N63393-80-0004)
21. Hangar Deck Safety (N63393-80-0003)

List of Proposed HAWKits

Ejection Seat Safety
The Tool Control Program
Dynamic Power
Power Settling

Order from addresses listed for Navy in the **Safety Films** table.

THREE DOWN AND ONE LOCKED

By LTJG Alan S. Cheak
VF-111

OUR flight was to be the last flight of the 2-week air wing detachment at NAS Fallon. During the week, I had learned a lot about how a fleet fighter squadron really works. Alpha strikes were the name of the game and a whole new way of flying for me. I liked it a lot! This particular Alpha strike was to be the last event of the day and the last hop of the 2-week det. My trusty RIO, a lieutenant commander and former RAG instructor, had served two tours in F-4s, had been in Vietnam, and was now in his second F-14 squadron. He had told me that the three most dangerous acts of naval flying are airshows, flyoffs, and the last hop of a detachment. I was soon to learn that these words were very true.

The Alpha strike called for five A-6s and seven A-7s, with eight F-14s serving as both TARCAP and MIGCAP. The brief began on time and every item was covered in detail. Our target was to be a small airfield located on the Bonneville Salt Flats about 200 miles away. My lead and I were assigned as TARCAP. My job was to protect two A-7s from a dozen A-4 adversaries that would be lurking just over the ridge.

Startup and poststart checks were uneventful as usual. At the holdshort, dash three went down with a generator failure, so we took off as a three-plane flight. Overhead at the rendezvous point, all the fighters were topped off by the A-6 and A-7 tankers. From there, the strike headed east for the target. As we flew closer to our target, bogey calls from the E-2 began to increase. Over the ridge, four of the A-7s dove for the deck to do their thing. As the attack guys went down, my lead and I followed them as escorts and began fighter weaves.

The six of us approached the target, successfully evading all the bogies. The A-7s rolled in on the target, and my lead and I provided high cover. As I watched where the bombers dropped their loads, I noticed the master caution light flickering. I instinctively looked down at the telepanel and saw that the hydraulic pressure light was illuminated. I quickly informed my RIO, leveled my wings, began a climb, and informed my lead of the problem and the fact that I could not engage in ACM.

As we began our climb, my RIO broke out the pocket checklist. I confirmed that the combined side had failed and that the bidirectional pump had picked up the load. The combined hydraulic gage read 2,400 psi. For a combined hydraulic failure, NATOPS calls for emergency extension of both the gear and the hook and for an arrested landing.

By this time, my lead had joined up on my left wing and informed me that hydraulic fluid was leaking from the left engine bay, forward of the port hydraulic stabilator actuator. Since the situation called for an arrested landing, it was decided that, instead of landing at NAS Fallon, we would tank off the airborne A-6 tanker and Bingo home to NAS Miramar.

Fifteen minutes after the emergency had begun, the combined hydraulic gage began fluctuating and, within 10 seconds, had dropped to zero. After joining up with the A-6 tanker, the refueling probe was selected to the extend position, and I began cranking with the hand pump.

After more than 100 cranks, the refueling probe would not extend. A decision then was made to trap at Fallon. An emergency was declared to NAS Fallon tower, and both the crash crew and an LSO were requested.

My lead and I now held 10 miles east of Fallon while the rest of the strike group proceeded with the recovery. The first step now was to get the landing gear and hook down. My RIO and I proceeded to follow the step-by-step procedures for the emergency extension of the landing gear, but as the handle was lowered and the nitrogen charge released, nothing happened.

I kept my hand firmly on the handle, and after another good solid pull, my lead confirmed what I already knew – my gear were still up and locked.

While orbiting, I doublechecked that the emergency extension handle was fully extended and locked. We then increased our airspeed to 250 KIAS and put G on the aircraft. After an initial pull of about 2 to 3 G, the nose gear came down and locked. The main landing gear doors just dribbled open, however.

The next step was to increase the airspeed to 280 KIAS and increase the G to about 3 or 4. With each successive pull, the main landing gear would fall in increments of about 1 foot but refused to go completely down and lock. Emergency lowering of the hook was successful. Focusing my attention back on the gear, we now increased our airspeed to approximately 310 KIAS. Three times we attempted loading up the airplane with 4 to 4½G. Again, with each pull the gear would drop a little farther.

After a visual inspection by my lead, he stated that the landing gear appeared to be down, as indicated by the straight black line on the drag braces. In reality, the side braces were not in place. The cockpit indicator now indicated the nose gear to be down and locked, while the main landing gear were barber-poled and the landing gear transition light was illumi-

nated. Since the main gear would not indicate down and locked, and realizing that fuel would soon be critical, we began setting up for a 5-mile straight-in approach to an arrested landing.

The first pass was waved off at about 2 miles because I was too high. The second pass was set up well and looking good as we called the ball with about 5.0 on the fuel. Our *Tomcat* touched down about 15 feet in front of the arresting gear, and from there, things began to happen fast.

The main landing gear began to collapse when we caught the wire. As the deceleration began to take place, the airplane felt as if it was doing a tail slide (which it was). Meanwhile, my lead flew by and called over the UHF, "The gear collapsed, you're on fire, get out!" As the aircraft slid to a stop, my RIO had the canopy coming up while I secured both the fuel handles and the throttles. The crash crew arrived as our aircraft came to a stop at the center of the runway intersection.

The crash crew surrounded the aircraft and applied foam around the ventral fins and turkey feathers. My RIO went out over the port wing and called out to me that we were on fire. I egressed over the starboard side and headed for the fire truck. As the two of us met behind the truck, we both looked back at our *Tomcat* and saw it sitting there somewhat resembling a "low-rider" fighter.

Later, the aircraft was picked up in a sling by a cherry picker. As soon as the aircraft was lifted, we were surprised to see the mains fall down and the ground crew literally push the gear into the locked position. Damage to the *Tomcat* was minimal. The ventral fins were obviously scraped clean, and the bottom turkey feathers took a little beating. The main landing gear doors were also crinkled by the gear collapse. Because of the material strength of the *Tomcat* (Grumman Ironworks), it was flying again in 7 days. The engines were changed and inspected as a precautionary measure. To this date, the exact reason for failure of the emergency gear extension is not known and is still under investigation.

In summary, I'd like to point out a few items that this naval aviator learned. First, I feel that if a main-gear-up landing is attempted, the F-14 is very capable of surviving the incident with minimum damage! To review a point, the F-14 emergency gear extension is not just a one-time activation. It can be initiated over and over until the system is depleted. Also, every pilot who flies a naval aircraft should not only know his emergency procedures cold, but also have a complete and **working understanding** of how each system works. Last but not least, be confident in your ability to handle any and all emergencies. ◄

Think about it!

Submitted by VA-56

A FEW days ago, some cigarette ashes were found in the cockpit of one of our aircraft. We don't know who was doing the smoking. It could have been a pilot or one of our maintenance people. None of the last five pilots who flew the aircraft were smokers. With the way the planes move around when they are flown, the "evidence" probably had not been there very long. It is an educated guess that whoever it was does not know the inevitable and disastrous results of mixing oxygen, even in very small quantities, with a spark or flame (or he has absolutely no fear of death).

If you haven't seen the film "The Man from LOX," you really ought to. It's a no-holds-barred, blood-and-guts attention-getter about the misuse of oxygen.

If you don't know how our country lost three mission-ready astronauts in a matter of seconds — *on the ground* — you ought to. The three men were on an open-circuit radio when an electrical connector sparked in the oxygen-rich air in the capsule. One of the astronauts managed to utter about one syllable.

There does not have to be a mask hose connected in the cockpit of an A-7 for the oxygen fitting to leak. If it *is* leaking and you simply *flick your Bic*(R), the lighter will explode in your hands. In about the next 2 seconds your clothes, your hair, and the entire interior of the cockpit will torch off. That gasp of surprise you utter will leave your lungs medium rare and largely useless. The fire will burn itself out in a few minutes if the aircraft fuel doesn't join in the act. **Think about it!** ◄

Afterthoughts of an Approach

By CDR B. M. McGuiness
VP-69

THE call from Approach Control added a new dimension to the descent by starlight into fogbound NAS East Coast. Destination weather for the 6 hours en route had been comfortably above GCA minimums with occasional 100-foot ceilings and one-half mile visibility. "No sweat," mumbled at least one crewmember. Now, from 20 miles out, Control's revelation of tower-measured zero visibility autonomically raised three sets of eyebrows in the *Orion* cockpit.

The traditional GCA brief had been given and duly acknowledged between the pilots and the flight engineer, but the new information suggested the crew might have to divert to the casually-picked alternate of a nearly CAVU Air Force Base about 100 miles to the west. Fuel was no immediate divert consideration since the flight engineer had slipped into the tanks a couple of extra pounds for Mom and the kids. In a flash, and based on the knowledge of two special instrument card holders in the cockpit, the crew told Approach Control they would have one go at the GCA and, if necessary, fly on to the alternate via the direct route.

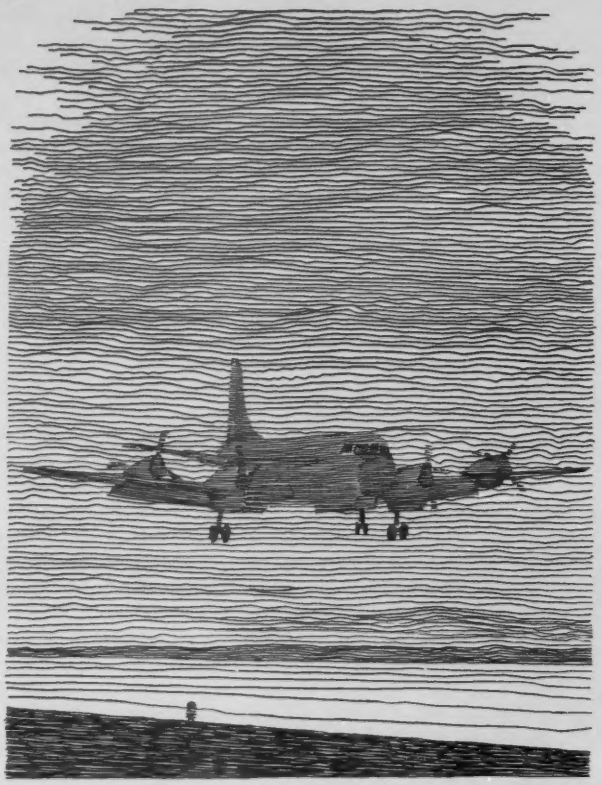
The stars were twinkling and the northern lights were dancing behind the port wing as the P-3 sank into the layer of coastal fog at 2,500 feet. The aircraft was vectored for several minutes to a dog leg intercept of the glideslope.

After the inbound turn, a descent rate was established. The man in the left seat stayed on instruments while the copilot established an inside and outside scan. Prior to reaching decision height, the copilot acquired the pulsating glare of the strobe lights which seemed to be coming from all directions. He did not immediately call the runway environment as there was no definite sighting.

At decision height, the copilot clearly sighted several strobe lights and announced the same to the pilot. The pilot shifted his scan from the instruments to the outside and the aircraft slowly rolled 10 degrees to the port. The pilot was establishing his visual reference as the copilot took the controls and rolled the wings back to the centerline of the strobes.

Seconds later, the pilot called sighting the runway lights. The copilot simultaneously released the controls, and a smooth and uneventful landing was made by the pilot.

The aircraft was required to taxi behind a "Follow Me" truck to the ramp due to the low visibility. During the taxi phase, the copilot told the pilot he had been on the controls during short final to keep the aircraft from drifting off the runway centerline. A surprised look appeared on the pilot's face as he indicated he had not felt the copilot on the yoke.



Afterthoughts: Is the standard GCA brief specific enough? Pilots in multipiloted aircraft should be exactly briefed prior to commencing an approach. Each crewmember in the cockpit should know what he is expected to do.

If the copilot spots the runway environment in-close or at decision height, is he to visually fly the aircraft until the pilot makes the visual transition? Should the copilot fly the aircraft to landing? It is conceivable that both pilots could be flying the aircraft to landing; this is obviously something we want to avoid.

This story had an "uneventful" ending, but it points out the necessity for continued emphasis and training on the transition from instruments to outside references during marginal weather. The instrument approach in IMC will always require continued emphasis, even by the most experienced pilots. ◄

Anymouse

Not Quite UP!

Scenario: The P-3B MOD was in position on Runway 25 at NAS WestPac preparing to take off on a routine, scheduled pilot trainer. The PPC was in the left seat as right seat approaches were planned for the copilot. The aircraft was cleared for takeoff, and the PPC started the roll.

At approximately 60 knots, the flight engineer called out a malfunctioning shaft horsepower gage. The PPC immediately called "ABORT!" and initiated retarding the power levers. Almost simultaneously, the PPC called for the flight engineer to pull back power lever number four. Reason: The PPC had a splinted, broken finger and **could not grip the power lever** to reduce power and reverse thrust for braking. An otherwise normal rollout and taxi back was effected.

I immediately praised the good Lord that this was a lightweight trainer hop and not a full-bag ASW flight where the PPC would have needed prompt control of all four power levers to maintain directional control and braking. We cheated death again!

We presently have two PPCs flying with splinted, broken fingers. We have one TACCO with a broken wrist in a cast who is flying routinely.

I do not know what the justification by our command or our flight surgeon is to allow such a violation of aviation safety and good sense. High tempo ops is **not** a factor.

The causal factor for this incident is not hard to understand in light of our operations officer's policy that all aircrew not in an up status will stand watches. Operations maintains that, with the tight manpower constraints they have to work with, they often have no replacements for the "down" pilot, NFO, or aircrewman without drawing from the duty cycle. While this is true during high tempo ops (with crews flying with minimum crew rest between flights), Operations will also acknowledge that this policy prevents a rash of down chits for picayune reasons.

Our squadron has a strong, high visibility safety program with strong command interest. In light of this, it's unfortunate that conditions exist which allow this scary and potentially dangerous incident to reoccur.

ASWmouse

A Downing Gripe

I'm in a VP squadron and a crewman on Crew 4. My crew position is the second mech, and I've been flying for 3 years. Today we were scheduled to fly, but the aircraft was down for a fuel quantity problem. Tank 5 had an 850-pound split between the cockpit and fueling panel gages. The max split can only be 100 pounds.

The maintenance officer OK'd the aircraft for flight. After we had fueled, we noticed that two other fuel gages were out of limits. The P-3C NATOPS on pg. 1-146 states, "When No. 1 tank is full it should read 10,921 pounds." We were indicating 11,400 pounds in the cockpit and 11,900 pounds at the fueling panel on tank No. 1 – another downing gripe. Tank No. 2 was indicating 11,800 pounds in the cockpit and 11,350 pounds at the fueling panel – yet another downing gripe.

The PPC elected to take the aircraft, but first the maintenance officer had to be called. He's the only one who could "up" the aircraft, and he did. The crew went flying with three out of five fuel gages not working properly. I think this is unsafe.

Fuelishmouse

Unsafe is a nice way to say it! The note on the bottom of pg. 1-146 in the P-3C NATOPS states that the specific gravity of fuel will vary and that hydrometer readings are necessary for very accurate readings. However, assuming that the gages were in as much error as noted, the aircraft was definitely "down."

The purpose of Anymouse (anonymous) Reports is to help prevent or overcome dangerous situations. They are submitted by Naval and Marine Corps aviation personnel who have had hazardous or unsafe aviation experiences. These reports need not be signed. Self-mailing forms for writing Anymouse Reports are available in readyrooms and line shacks. All reports are considered for appropriate action.

REPORT AN INCIDENT
PREVENT AN ACCIDENT

CDIs Needed Now!

I'M assigned to the squadron's W/C 130 (combined AME/PR) at NAF Homebase. Recently, one of our P-3s returned from an extended TAD period at an island that's hard to imagine going to, let alone coming from. The aircraft was downed by the FE (flight engineer) for a defective oxygen system, turbo compressors, and several minor discrepancies

incurred during the trip.

The gripes for our shop to fix were unbelievable! They should have been fixed before flight, according to the books. The gripes were, in fact, downing ones. The P-3's main oxygen system had leaked over 600 psi during its TAD period and had read 1,200 psi on takeoff. The turbo compressors were swapped without being CDI'd. Upon arrival back home, both compressors were completely inoperative and had to be replaced. The aircraft had RON'd en route to Homeplate, where it was supposed to be 0_2 serviced but was not. Also, it was not believed to be daily inspected. We *all* know that the max psi leakage is 50 psi per day, and minimum for takeoff is 1,500 psi, but this didn't seem to matter to this crew. These two major gripes, plus several minor ones, all existed with the PPC's (the squadron Safety-NATOPS Officer) knowledge. The only viable answer that we got was that there were no CDI personnel on the island. No answer was available as to why the aircraft wasn't serviced completely at the RON base.

Why weren't there any CDI personnel at the TAD spot? The maintenance department isn't convinced that they need an AME or PR there – previous to this ANYMOUSE, anyway. However, we know who's hurting, that's for certain. Maybe they'll get the picture now.

Hurtinforcertainmouse

Asking for Trouble

ONE of our UH-1Es had a UHF discrepancy worked on by maintenance. Personnel informed maintenance control that the radio was defective and required a new cannon plug and wiring. A new JCN was issued, as an "up" discrepancy, and parts were put on order.

The aircraft was assigned 2 days later for a 3-day cross-country. The pilot took off only to return 30 minutes later not satisfied with the UHF radio. The radio was intermittent to unusable.

A technician was sent out to

troubleshoot (he was a qualified CDI). He informed the pilot that the wiring was the problem and an open discrepancy existed, but said the plane should be down. (UHF is the only communication in a UH-1E.) The shop NCOIC informed maintenance control. The pilot elected to take the aircraft anyway, in IFR conditions, through a dense metropolitan airspace with a known faulty UHF.

Avionicsmouse

This is very reminiscent of Iratemouse (JAN '79 issue). Why pilots want to fly marginally up (or down) aircraft is a real mystery. Even more of a mystery is why maintenance control doesn't stop these idiots.

Land It

MY buddy on a sister frigate told me about a boo-boo, pulled by his ship one night, concerning their LAMPS helicopter. It seems they were preparing for a routine recovery and the LSE informed the bridge they weren't ready for a green deck. No hot-suit man had reported. They passed the word twice with no one appearing.

Their CO became highly irate that the helo was not being brought

aboard, ordered them to give a green deck, and then told the LSE to put the bird on deck right away! The petty officer in charge of the hot-suit men heard the flail, whipped into the hangar, and changed into a suit to take the place of the missing man.

This now meant a hasty recovery of the helo instead of a waveoff. Meanwhile the OinC, who was hotfooting it to the bridge, changed his course to the tower for the recovery. The pilots didn't have the faintest idea of the "mickey mouse" going on, so they made their approach and a routine landing. After landing, they wanted to know what took so long and were somewhat mollified when they heard the whole story.

The safety record of LAMPS is built around sound procedures. I submit that there is no place for temper or impatience. Wouldn't it be a lot better for a CO to ensure all safety procedures are followed and chew someone out later?

Nofaultmouse

We couldn't agree with your last sentence more. Too often, people pull "delta sierras" such as this and get away with them. Then, when they finally succeed in killing someone, they're completely mystified as to how it could happen. ◄

Oh What a night!

By LT D. J. Franken
VA-85

The following account of a recent incident illustrates how a "routine"

IT was a routine hop during night carrier operations in the month of March in the Mediterranean. The mission was straightforward enough – a single A-6 was to conduct a low altitude raid against the carrier about 1 hour after takeoff. The weather was forecast to be 2,000 scattered, 4,000 broken, with good visibility outside the scattered rain showers throughout the operating area. No problem. It was an easy hop for two aircrewmen with thousands of hours and nearly 1,700 carrier landings between them.

The crew briefed and planned a short overwater navigation route including several practice system attacks to be conducted prior to the primary raid mission. The takeoff and climbout were uneventful, except that the actual weather was considerably wetter than forecast. The A-6 was in and out of rainstorms and the crew noted an exceptional amount of static electricity buildup. At frequent intervals, the cockpit canopy was literally aglow with fingers of St. Elmo's fire.

The crew completed the navigation route, making several practice weapon releases, and proceeded to the designated starting point for the raid (50nm from the CV). The attack on the CV was performed at high speed, 1,000 feet AGL, and went like clockwork. Again, even at low altitude during the raid, the A-6 was engulfed in a heavy buildup of static electricity. Following the ship strike, the aircraft switched to Marshal and proceeded to holding.

In and out of the weather in Marshal, the A-6 pushed on time with a fuel state of 7.5. The B/N followed his routine procedures by setting up the computer for an *Intruder* approach and placing the radar cursors on the ship – a backup for the ship controlled TACAN/CCA. Significant turbulence was encountered throughout the descent.

Inbound at 250 KIAS, at about 12nm and level at 1,200 feet, the A-6 canopy area, radome, and refueling probe became covered with tongues of static electricity. Large streaks of blue fire were observed reaching out from and extending forward of the refueling probe. The pilot and B/N could not help but exclaim to each other that what they were witnessing was incredible! Blue slivers of electricity were extending 6-8 feet forward from the refueling probe! Suddenly, there was a loud, cracking boom and an intense flash of light followed by silence. Both men were blinded. Neither said a word at first, but each was wondering how long this temporary state of blindness would continue. Within the initial 10 seconds, the B/N extracted his flashlight, but with the red lens attached, the light was useless and neither pilot nor B/N could see anything. Meanwhile, the pilot held the controls as they were.

Nearly 15 seconds had now elapsed and the B/N rapidly began a fingerwalk along the center canopy bow, his hands tearing for the location of the thunderstorm lights switch. The pilot, meanwhile, applied a small amount of back stick. About 20 seconds after the flash, the thunderstorm lights were switched on and the crew recovered enough vision to interpret essential instrument readings. Happily, the A-6

mission can at anytime become a hair-raising episode.

was climbing through 1,800 feet, a little right wing down. Still extremely disoriented and experiencing blurred vision, the crew called CATCC and advised the controllers of their difficulties. The A-6 climbed to 2,000 feet and leveled off so the crew could get ready for the night approach that still had to be completed.

Several minutes in holding elapsed, and the crew agreed that it was time to continue for the landing. Other aircraft had been recovered, fuel state was becoming a definite consideration, and as always in the Med, a nighttime divert was a less than desirable option. Accordingly, the crew called CATCC and informed them that the aircraft was ready to come aboard.

The A-6 received a vector inbound at 13nm, intercepted the final bearing, and dirtied up at 9nm. The pilot was concentrating on the instruments. The B/N was both monitoring instruments and looking outside the cockpit. Neither crewmember knew exactly how good or bad his vision was at this point. The A-6 commenced a Mode III approach. The B/N acquired the ship visually at about 2½ miles and realized that things didn't look normal – in fact, his vision was still somewhat fuzzy and blurred. At about a mile and a half, the B/N saw what he perceived to be a centered ball and notified the pilot on the ICS. The pilot rogered the B/N's observation. With the A-6 at 1 mile, CATCC advised, "You're on centerline, below glidepath, call the ball." The B/N received an acknowledgement from the pilot that he also had a ball, advised the pilot that they were low, then called the ball over the UHF. At this point, both pilot and B/N saw a low, blurred ball. Seconds later the LSO called "You're low, work it up," soon followed by several emphatic LSO calls that the A-6 was low. Simultaneously, the B/N made several ICS transmissions stating "We're working a low ball." At less than 1/8 mile from touchdown, the crew still felt things just didn't look normal, and at about the same time full power was added, the A-6 was given a waveoff. It was then that both pilot and B/N realized just how low they had been as they chillingly noted that the low, blurred image of a ball they had been flying was in fact a low, "phantom" ball (ball actually off the mirror). The real ball appeared from the bottom of the lens as the aircraft waved off!

The A-6 turned downwind, set up for its next CCA, and trapped aboard with a "fair" pass. The crew retired to the readyroom and sank into their chairs to recount and debrief the previous half-hour . . .

Two frightening events in one ordinary flight provided the squadron with one of those million-dollar learning experiences. Lessons learned? Well, here are a few:

- That experience helps, but creative anomalies can happen to even the saltiest aviators. The crew in this A-6 was highly experienced, but had never before encountered an environment/occurrence similar to this one. (Old dogs *can* learn new tricks.)
- That the exact location of each switch in an aircraft's cockpit is at some time or place, important. The value of blindfold cockpit checks cannot be overemphasized. For example, where is the thunderstorm light switch in the A-6? Are you accustomed to reaching for it *with the canopy closed?* Do you check it on preflight?
- Always, always back up carrier-controlled approaches with either an *Intruder* approach (or equivalent) or by knowing and calling the numbers during an approach. During the course of this incident, the B/N abandoned his normal *Intruder* approach procedures after the static electricity discharge and did not back up the approach. Similarly, the experienced pilot was tricked into accepting and flying a "phantom" ball, believing that the light source he saw was blurred because of the previous blinding experience.
- Incidents or accidents usually result from a combination of factors or events.
- Expect a loss of vision if you should ever be struck by lightning or have a huge static electricity discharge from the aircraft. Anticipate what procedures you will follow.

Perhaps your next readyroom flying session could benefit from a discussion of the following "what ifs." What if this crew had been blinded by electricity during a night dive-bombing run, a rendezvous, or any situation other than straight and level flight? What if their thunderstorm lights had failed to operate? (The crewmembers in this incident later recounted that they both realized that they were momentarily in a situation where having to eject was a real possibility.)

Carrier aviation is an extraordinary lifestyle. Don't ever accept the feeling that tonight's flight is just an ordinary hop.

Managing Management

By LCDR R. V. Hearn
and
LT J. M. Buyske
VP-22

DETACHMENTS, deployments, increased individual flight tasking, schools, TAD requirements, *et al*, coupled with recognized manning shortfalls in both the officer and enlisted ranks, adversely affect the traditional concepts of management stability inherent in the organizational base of many aviation squadrons. The functional framework which has served us admirably during earlier periods is now beginning to show signs of stress both from an operational and a safety perspective. Historically within aviation, the focal point has been on the aircrew training program – what it teaches, or does not teach, how it is conducted, or what is the cost benefit ratio for a given training segment. Beyond this aspect, however, there exists a far more subtle influence on our operational success and safety posture – the unspoken influence of our unit's day-to-day organizational conduct – the fundamental soundness of the unit's organizational format and the decision process which it fosters. There is a direct correlation between our management *modus operandi*, flight safety, and on-station effectiveness. If, for whatever reason, our daily practices are dominated by "tilting windmills" or "putting-out brushfires," are we not susceptible to that same approach on station? Will we see the escort and miss the battle group? Will we silence the fire warning and forget the fire?

Although no single program can determine by itself the ultimate success of a unit, the examination of each program as it contributes to the whole can produce a substantial effect. With relatively constant administrative requirements and increased individual tasking resulting from reduced personnel availability, the organizational format must foster collective management efficiency. One means to this end is through an examination of the unit's organizational framework and the associated task assignments.

With these factors in mind, Patrol Squadron TWENTY-TWO began a process of internal self-examination to identify the changing requirements of the unit. Although each squadron department was examined and adjustments implemented, the focus of this article shall be the management of flightcrew training requirements.

The internal training program was seen as having two distinct elements: first, the basic flight skill requirements relative to the safe and effective operation of the aircraft and its crew under all flight conditions; and second, the tactical training required for the successful employment of the weapons platform. Having drawn this distinction, a functional organization was developed with the initial training objectives assigned to the Safety/NATOPS Department and the latter assigned to the Advanced Mission Plans Department. A major objective of this reorganization was the maintenance of training functions and stability of the aircrew training program via established doctrine while reducing the redundancies of the existing management system.

Within VP-22, in the early spring of 1980, aircrew training was managed in much the same way as in most patrol aviation squadrons. The pilot and NFO training officers were assigned to the Training Department where they were responsible for monitoring the officer progress via the PQS system. The Naval Aircrewman training was predominately implemented with PQS in the individual work centers. The administration of the NATOPS flight program was assigned to the Safety/NATOPS Department, yet the General NATOPS program for flight physicals, physiological requirements, low pressure/night vision, survival swim and DWEST was handled by the Aircrew Training Officer within the Training Department. Additionally, the General NATOPS instrument currency requirements were conducted by the Operations Department.

To obtain any information concerning the currency of flight qualifications on a particular aircrewman, it was necessary to audit the member's NATOPS training jacket, consult the PQS training files, review the flight/training log, and seek out over four different people in as many as four different departments. The results, as could be expected, were quite often inaccurate and always time consuming. There-

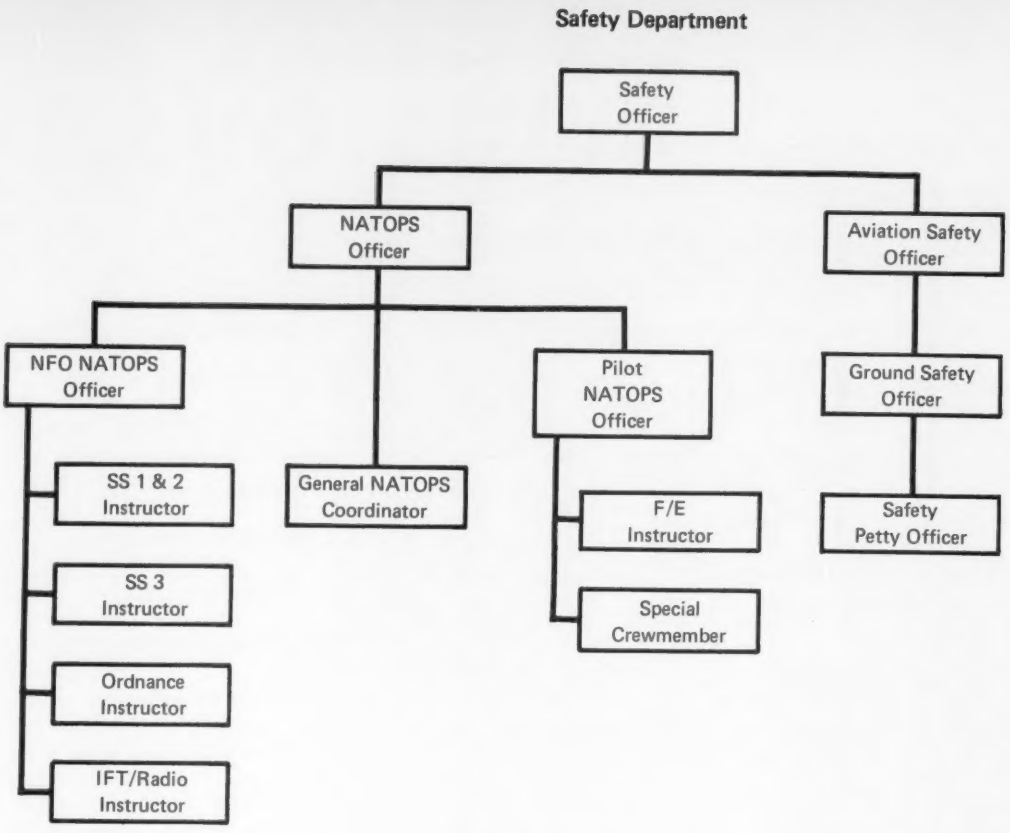


Fig. 1

fore, one objective of the reorganization was to effectively restructure the aircrew monitoring and management system in such a way as to consolidate all of the required flight training data and have it readily accessible.

The immediate solution to this problem of accessibility was to redirect all necessary data to the cognizance of one department. It soon became apparent, however, that with the tremendous amount of information involved throughout all positions and the necessity for establishing an accurate data base, the task had to be divided into workable sections. The NATOPS Division, composed of the NATOPS Officer and the primary NATOPS instructor for each aircrew position (pilot, NFO, flight engineer, radio, inflight technician, acoustic operators, nonacoustic operators, and ordnance) were given direct control and responsibility for the comprehensive management/supervision of their respective training communities. Additionally, a General NATOPS (OPNAVINST 3710.7) Instructor Coordinator was added to provide policy guidance, coordination, and planning throughout the aircrew program.

The initial reaction to this organizational change was "too much paperwork," "when will there be time for NATOPS training?", and "NATOPS is supposed to be QA for the aircrew training program. Won't this defeat the intent of the QA function if it is also responsible for the management of the training program?" A resolution of these questions was considered possible, so the new organization was implemented as depicted in Fig. 1.

The paperwork involved was directly proportional to the condition of the individual training jackets. Long hours were spent accumulating the necessary data in order to establish a baseline of minimum required entries, but once this initial obstacle was overcome, the upkeep of the central training jacket was relatively simple. It then became the primary source document for monitoring an individual's progress.

The accrued data was then transferred to a *progress board* which lists individuals by aircrew position and depicts the due dates (month/year) for instrument checks (pilot/NFO), flight physicals, annual NATOPS checks, low pressure/night vision, survival swim, DWEST, and PQS progress, thus making the information readily available to all departmental planners.

For ease of accumulative review, each aircrewman's individual data was transferred to a filing card, listing each qualification due date, and filed accordingly. From this card file, all aircrew qualifications can be found for any month in the year, training forecasts developed, and a coordinated opera-

Fig. 2

tions/training plan can easily be executed. The end result of this organization was a very accurate system of monitoring aircrew flight qualifications in the minimal amount of time, while providing a comprehensive training picture and actually enhancing the NATOPS program. This consolidation also eliminated the requirement for four billets previously utilized in other departments, freeing those individuals for other necessary duties.

The concern that the QA function provided by the NATOPS instructors would be compromised can best be answered by using the pilot training program as an example. In the past, for the Pilot NATOPS Officer to effectively perform his functions as the QA element, he was required to search out training jackets which were often limited in scope and timeliness, locate and review evolution grade sheets, and corner instructor pilots to determine how individuals were progressing – a task often inaccurate, yet requiring a great deal of time and effort.

Under the new organization, this information is fed directly to the Pilot NATOPS Officer as it is gained. Trends can be identified and corrected early in the training syllabus instead of 12 months late during the initial NATOPS check. The end result of this feedback is better training for the individual and a higher quality product for the squadron.

With the basic flight skill training established, the tactical training management system was reviewed from both the individual and crew training aspects. To effectively accomplish relevant tactical training, the basic charter of the Advanced Mission Plans department was expanded to include tactical training as shown in Fig. 2.

Thus an efficient management system was developed to provide concentrated emphasis on the two essential elements for mission accomplishment: basic flight skill training and individual tactical advancement.

The foregoing discussion has not been presented as a static element but, rather, a dynamic process. It was not an end in itself but a new beginning in the management process. It is effectively meeting the requirements of this squadron and, as such, is presented as a possible aid to other aviation units in meeting the demands of training and operational commitments while maintaining the highest possible degree of management stability. ◄

Traffic Watch

ATC to Aircraft: You have traffic at 10 o'clock, 6 miles.
Aircraft to ATC: Give us another hint – we've got digital watches.

Golden Contrails

BRAVO ZULU

LT J. M. Kranz, USN
LTJG J. W. Willis, USN
AW3 R. M. McGaughey, USN

LT Jeff Kranz, LTJG Joe Willis, and AW3 Bob McGaughey of HSL-34 launched from USS MOINESTER (FF 1097) in their SH-2F LAMPS helicopter for a night surveillance sortie ahead of the task force. With no moon, and an overcast, they were halfway through their low-level search when the copilot, LTJG Willis, began feeling erratic control inputs. Noting hydraulic pressure fluctuations, they immediately initiated MAD towed body retrieval, during which the automatic stabilization equipment kicked off the line and the hydraulic boost system began violent on and off cycling. ASE and boost were secured, and as soon as towed body retrieval was complete, the landing gear were lowered. Complete hydraulic failure occurred just after the landing gear indicated down and locked.

Flying boost off toward USS MOINESTER, with no visible horizon, they declared an emergency and had USS MOINESTER attempt to locate a larger landing platform in the area. As luck would have it, the nearest larger deck was 110 nm away, and they had fuel remaining for only 80 nm.

Aboard USS MOINESTER, emergency flight quarters were set, with all stations manned and ready for the SH-2F to arrive 10 minutes after initial notification. Due to wind and sea conditions, it was impossible to achieve all the criteria for the narrow recovery envelope required for a night boost off approach, so the safest combination available was chosen. Despite the fact that the night was extremely black with no horizon, the visibility was good.

AW3 McGaughey left his radar scope long enough to pin the starboard landing gear in flight. The port landing gear could not be pinned in flight, even over the deck, due to deck movement and the boost off condition.

With AW3 McGaughey providing continuous radar ranges and bearings, and LTJG Willis calling altitude, groundspeed, and closure rate, LT Kranz flew a high approach to wave-off, followed by a smooth, uneventful approach and a landing on centerline, right in the middle of the circle.

The rapid and professional reaction of this flightcrew preserved an aircraft for another day and kept a flight deck crew from harm. Well done!

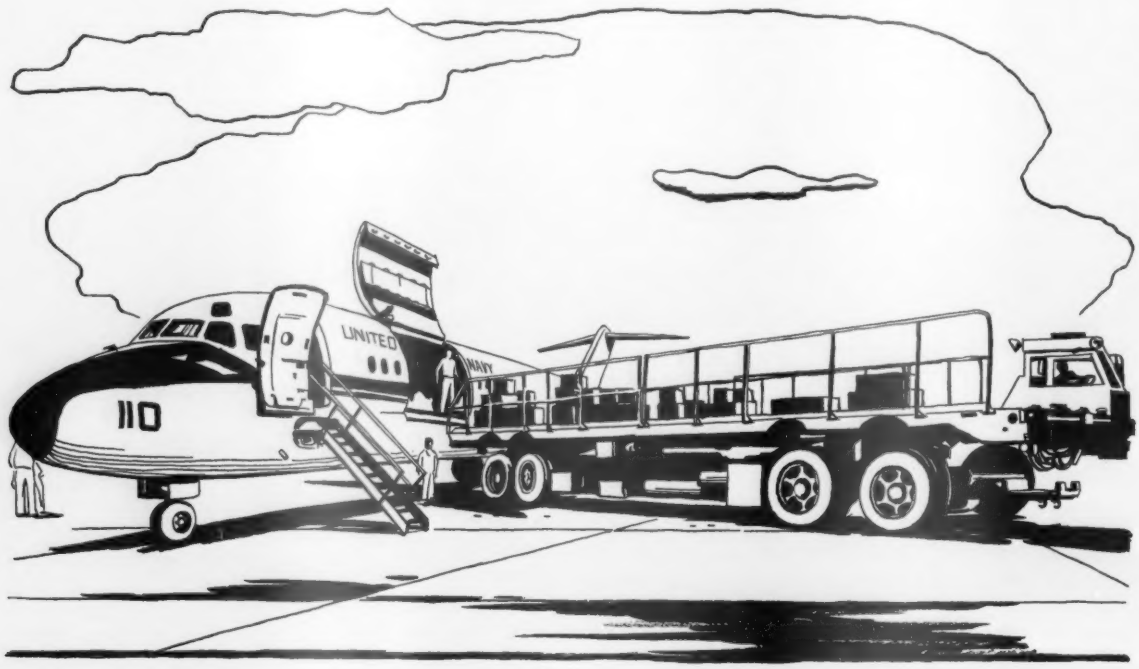
C-9B cargo loading

THE addition of the C-9B *Skytrain* to the Navy's fleet logistics support effort has added a needed dimension to our efficient and productive airlift capability. The speed and flexibility of the C-9B aircraft, combined with the professionalism of the Naval Reserve personnel who fly and maintain them, have allowed us to meet all commitments with minimal maintenance problems and associated downtime. The aircraft can be configured in a number of ways, allowing for all cargo, a passenger/cargo mix, or an all-passenger capability and providing a level of passenger comfort unexcelled in fleet experience.

For the majority of airlift requests, the aircraft is configured in an all-passenger or a passenger/cargo mix configuration that allows for 65 passengers and two cargo pallets. It is in this 65/2 configuration that problems have arisen in the past due to poor planning or simple misunderstanding of cargo and hazardous material loading and handling requirements.

The VR community means service. In spite of the demanding 16-hour duty days, the ultimate goal is expeditious, efficient service to the fleet and, in particular, to **your** squadron, ship, or command. And you can help us get you to your destination safely and quickly with a little bit of preparation.

Properly planning your airlift requirements will result in more efficient utilization of the aircraft. Properly loading your pallets with items authorized for air transport and providing accurate cargo weights will minimize ground time and eliminate the need to "bump" cargo which you might really need on a deployment. Although most items are covered in NAVSUP PUB 505, some articles deemed **hazardous cargo** continue to cause problems. The best thing you can do is follow the book. If there's a question about a particular item, call and ask about it. The best people to call are the squadron handling your airlift (VR-56 Operations, Autovon 690-7817), or the Naval Transportation Office in Norfolk (Autovon 690-3075).



and handling

By LCDR Bruce J. Blue
VR-56

As an example of some typical cargo-loading questions, witness the following conversation (our end only):

"VR-56 Operations, LT Jackson, this is a nonsecure line."

"Good morning, Commander. Yes, I'm the aircraft commander on Swing 00."

"I'll be glad to answer any of your questions about your cargo loading, Sir."

"Well, to begin with, the cargo pallets are all 88 inches by 108 inches. You can load your cargo up to 85 inches wide and 74 inches high, but it will have to slope inward from the sides from 39 inches in order to fit in the aircraft. Your total cargo weight is limited by the flight advisory to 6,000 pounds. If your cargo is on two pallets, the lighter one will normally have to be loaded first, so it's a good idea to have them set up that way on the K-loader or transfer dolly to save time."

"Yes Sir, accurate weights are very important. We've had some problems with inaccurate pallet weights in the past which could have resulted in accidents. The weight of the pallets and the cargo straps or cargo net should be included in the final weight figure. This allows our loadmaster to determine an accurate weight and balance for the aircraft and be sure that it's within limits for takeoff and landing. *Ballparking* cargo weight can mean disaster and is simply not worth it."

"Yes, tires can be transported as part of your cargo. Make sure, however, that your people follow NAVAIR 04-10-506 and deflate the tires to 50 psi or 50 percent of their normal operating pressure, whichever is less."

"Yes Sir, that includes the tires for the CO's moped."

"Speaking of mopeds, if your people are planning to transport any gasoline tanks, motors, jennies, or bowsers, be absolutely sure that they are properly drained, purged, and sealed as described in NAVSUP PUB 505. We've had a couple of problems here which resulted in a flight being forced to return due to gasoline fumes from an improperly purged tank. The guilty command caught a lot of heat because of it, and it really wasn't very smart."

"No Sir. If that SEAL team is traveling with you, they don't need to purge their underwater breathing gear. They will need to reduce the pressure in the tanks to 300 psi or less, however, unless they're shipping them in crates to protect the valves. NAVSUP PUB 505 provides the guidance for loading and handling those tanks, Sir."

"NAVSUP PUB 505 covers transporting flammable liquids like paint thinners, paint, and corrosion control chemicals, too, Commander. Some items are prohibited, some are allowed with a waiver, and some just need the proper packaging for air transportation with passengers onboard. Generally, we feel that if the items are readily available at your deployment site, why not avoid the hassle? Otherwise, go to the book."

"Commander, that question on personal survival gear has really caused some heartburn. It seems a bit ridiculous to tell some fighter or attack jockey that those pencil flares he has strapped to his chest are really class "C" explosives and not authorized to be carried aboard military transport aircraft. That's why there has been a waiver requested and a temporary waiver granted allowing the transportation of pilot life support equipment and flares not exceeding 1 kilogram (2.2 pounds) of class "C" explosives. They do, however, need to be packaged in a fiberboard box or standard parachute bag and carried in the hold of the aircraft. Hopefully, this waiver will clear up the many disagreements between transport loadmasters and pilots bent on keeping their survival gear intact."

"No problem at all, Commander. I'm happy to answer any of your questions. We appreciate your taking an interest in this airlift and the problems you might encounter in trying to get your people and gear home."

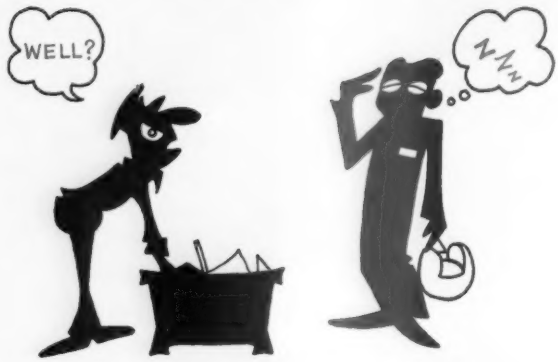
"Yes Sir, most of the items we've discussed are covered in the publications I've mentioned, but I'm happy to help clear up any problem areas. Why don't you post the VR-56 telephone number in your Operations office so you can call us if we're scheduled for another of your airlifts. The Autovon number is 690-7817."

"Absolutely, Sir. With the information you have now, we should be able to load your people and get you home in record time."

"It'll be a pleasure meeting you, too!"

We trust the point is clear – get the answers to your cargo loading questions before the airlift aircraft is sitting on your ramp! – Ed. ◄

Am I too tired?



By Robert A. Alkov, Ph.D.

LT Sluf Driver stifled a yawn as the flight leader concluded his brief with "Let's man 'em up!" Sluf left the readyroom and headed for the flight deck. "Wonder why I'm dragging tonight?" he thought to himself. "After all, I've slept 8 hours in the past 24, had a bite to eat, and haven't been foolin' around much. The *quack* says I'm PQ and AA, so why can't I snap out of it?"

After man-up, he taxied onto the No. 1 cat, saluted, and was launched into a dark, moonless sky with no visible horizon. Later, while attempting a rendezvous, he disappeared from the ship's radar display. His leader reported having seen a bright flash on the water from behind. No wreckage was spotted, and Sluf was never heard from again.

So, what happened to the dauntless LT Driver? The AMB reported the cause was *undetermined*, with *pilot error* as the most probable cause. The flight surgeon noted that Sluf was physically and psychologically prepared for flight. The only possible psychophysiological factors present were vertigo and/or disorientation.

On page 8(d) of the MOR, the schedule of LT Driver's last 72 hours appeared.

Saturday 2300 - Arrive from CONUS aboard USS BOAT in the Indian Ocean
Sunday 0100 - Turn in
0930 - Arise; check into squadron
1000 - Check in at sickbay
1200 - Lunch
1300 - NATOPS Exam
1500 - Meet Skipper, assigned job in maintenance
1700 - Dinner
1800 - To maintenance spaces
2100 - To room, read book
2400 - Retire
Monday 0600 - Arise; no breakfast; assumed duties as SDO
1200 - Chow
1300 - Readyroom; talked with department head
1600 - Dinner
1700 - Readyroom, night ops brief
Tuesday 0100 - Retire
0200 - Awakened for 5 minutes by a phone call from the ASDO
0340 - Awakened for 3 minutes by a phone call from maintenance control
0500 - Arise, coffee and donuts
0600 - Relieved of duties as SDO; begin brief for hop
0800 - Man-up
0830 - Launch
1000 - Recover
1200 - Lunch (hot dog and Coke)
1300 - To maintenance spaces
1710 - Retired to room for nap
2110 - Arise; to readyroom; ate candy bar and drank Coke
2130 - Brief for night hop
2215 - Man-up
2245 - Launch
2300 - Disappeared from radar

Let's examine all of the facts in this case in order to try to arrive at a plausible scenario. The crossing of nine time zones from the east coast of CONUS made LT Driver susceptible to circadian rhythm phase-shift problems (desynchronosis). (*See "Do You Have the Rhythm Blues?" in the JAN '81 APPROACH for further details on this phenomenon. – Ed.*) The pattern of interrupted sleep didn't help much, and his intake of junk food set the stage for reactive hypoglycemia (blood sugar irregularities). All of these factors led to a pattern of chronic fatigue which accumulated over a period of time. But in order to better understand LT Driver's case, let's review a few specifics about fatigue.

Fatigue is broken down into three varieties by the U.S. Naval Flight Surgeon's Manual. These are acute (physical) fatigue, task-induced (operational) fatigue, and chronic fatigue.

Physical fatigue occurs as a consequence of the buildup of lactic acid and other chemical byproducts of metabolism during muscular exertion. It is acute or temporary and is relieved by rest.

Operational fatigue occurs as a result of long hours of work in jobs that involve prolonged concentration on a task, the need for constant attention and alertness, and stress from the environment (e.g., noise, vibration, mild hypoxia). This is the kind of fatigue that sets in during prolonged flights. It can also be relieved by adequate rest.

The third kind of fatigue, applicable in this accident, is chronic fatigue. The effects are cumulative over a period of days and weeks and result from the continual strain of trying to adjust to stressful environments, occupations, or personal problems. Although this kind of fatigue is primarily psychological in origin, it is aggravated by circadian desynchronosis, sleep loss, inadequate nutrition, lack of physical exercise, boredom, and life changes. The symptoms are tenseness, irritability, frustration, lassitude, loss of confidence, greater awareness of physical discomfort, depression, loss of appetite, and insomnia. If not alleviated, chronic fatigue can bring on such diseases as peptic ulcers, skin rashes, asthma, and an increased susceptibility to upper respiratory tract infections.

The rate of onset of operational or task-induced fatigue may be accelerated by a high level of chronic, cumulative fatigue. The level is built up slowly when the individual does not get enough rest to compensate for prolonged stress.

Naval aviation requires frequent changes in work schedules, high-tempo operations, and changes in circadian (day/night) work cycles. Because of this, **management should allow individuals who have recently deployed time to adjust to new time zones for a few days before flying (especially at night).** Allowing the individual the time to adapt to his new environment before scheduling will help alleviate problems due to circadian desynchronosis.

Now, let's review LT Driver's physical condition before we talk about his psychological factors. Tired from several days of MAC travel, changing time zones, and interrupted sleep, he ate a diet consisting mostly of sweets and carbohydrates prior to his last flight. These foods stimulate the pancreas to overproduce insulin, especially when an individual is under stress. The insulin helps the body to rapidly metabolize the sugar, but when all that is burned up, it actually causes a drop in the blood sugar level after about 45-60 minutes (hypoglycemia). The result is even greater fatigue.

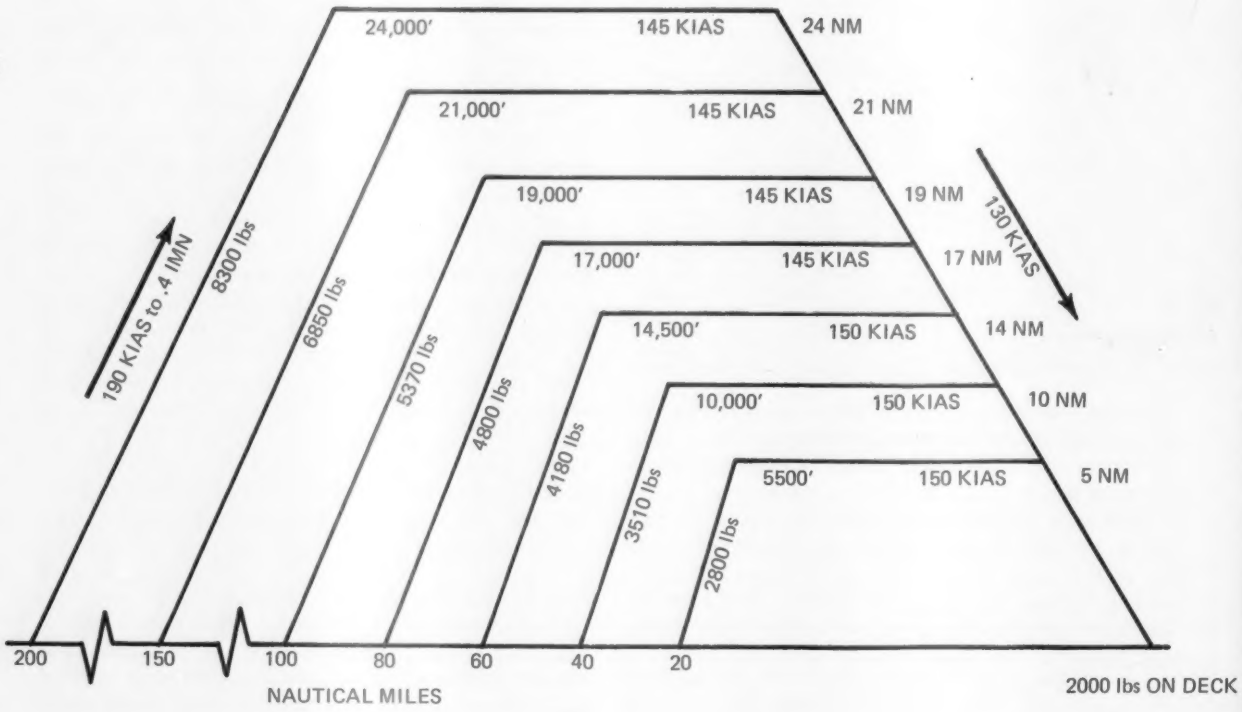
The rate of fatigue onset is also related to the individual's psychological state. Chronic fatigue reactions vary with the individual and his ability to cope with stress. If he is already coping with a great deal of stress from life changes (as occurs in any deployment situation), his ability to handle chronic fatigue is impaired. The younger, or less mature an individual is, the less he can cope with these stressors.

The answer to the question "Am I too tired?" ultimately depends upon the interaction between the individual and his environment. Have you shown any of the signs of chronic fatigue mentioned above? Minor worries and anxieties are an essential part of our lives and serve to stimulate us; it is the onset of fatigue symptoms that indicate something is wrong. You need to have a realistic self-appraisal – to know your own limitations and to set your goals accordingly. Don't try to do too much at one time. (Our stress coping and fatigue resistance are also affected by physical conditioning and dietary habits. In a future article, LT Bill Little, Aerospace Physiologist at the Naval Safety Center, will expound on this subject.)

When the answer to the question "Am I too tired?" is "yes," it behooves you to inform Ops and your CO. A visit to your friendly flight surgeon for a grounding chit will help. Getting your personal house in order, eating proper meals, undertaking a regular exercise program, and getting enough uninterrupted sleep and rest will alleviate the symptoms of chronic, cumulative fatigue and enable you to do a better, safer job.

KISS* Bingo

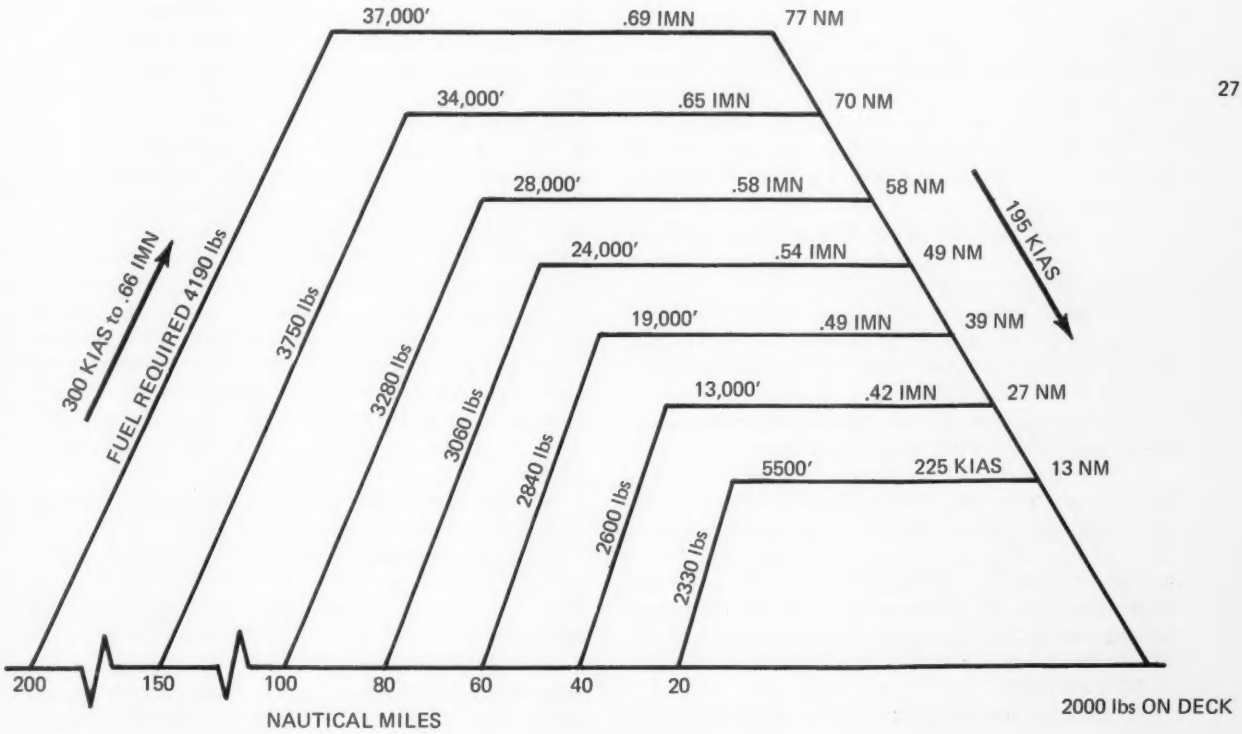
NATOPS pocket checklist Bingo charts contain large amounts of data. Much of that data is not routinely used, and although aircrews need to be familiar with where to find it and how to use it, we found that it was so seldom used that it interfered with quickly finding needed Bingo information. To alleviate this problem, we made up local Bingo cards which have proved easy to understand and practical to use during normal flight operations. The cards could be further expanded to contain all



Card

By LCDR David P. Erickson
VF-51

the information on a Bingo page, if desired, or might be amended to offer a "how-goes-it" by adding fuel required for each leg, i.e., climb, cruise, descent. The cards were designed to be easy to read and understand. The left card is for an F-14 with gear and hook down; the right card is for a clean F-14. Both profile and aircraft silhouette proved practical substitutes for aircraft drag indexes. It works well for use locally and offers a possible format replacement for the standard NATOPS Bingo charts.



27

*** Keep it simple, stupid.**

Getting the message across

A NOVEMBER 1980 message to selected commands from Commander, Fighter, Airborne Early Warning Wing, Pacific (COMFITAEWWINGPAC) contained some excellent guidance on what it takes to produce an effective aviation safety program. The following comments from that message comprise a distillation of the opinions and reflections of squadron commanding officers and air wing commanders solicited during a commanding officers' safety conference hosted by COMFITAEWWINGPAC. These comments are considered pertinent to all within the naval aviation community.

"The major heading is **leadership**. This came across loud and clear in virtually every participant's remarks. Of the elements necessary to prevent accidents, the one that tops the list is command interest. This was stated in numerous ways, but the fact is that the one major ingredient, the *sine qua non* of a successful safety effort and of overall productivity, is command attention. Stated another way, if the CO flies junk, accepts sloppy and undisciplined performance from his aircrews, does not comply with (or even worse, selectively complies with) CNO, AIRPAC, or Wing instructions, then he has personally fostered an accident-prone outfit. It may not happen on his watch, but it will happen.

"Without exception, every CAG and commanding officer reiterated and reaffirmed the necessity to conduct **realistic training**. Within the context of that training, it is incumbent upon the commanding officer to recognize that:

- "It is, or may be, high risk, and that higher than normal potential exists for a mishap in this type training.
- "Selected individuals within the command may not be ready to participate fully in the projected evolutions. The CO must keep the lines of squadron communications open to allow him to know in advance that a particular pilot is mentally or physically unprepared to actively and safely train to the limits. This must be recognized by the CO and it means looking beneath the 'I can hack it' facade. The old 'can-do' spirit in the cockpit of a multimillion dollar, irreplaceable F-14 or E-2 is sheer folly.

"Perhaps the next important category is **discipline** (flight and command). The quality assurance expert within the squadron must be the commanding officer. He must fly with and evaluate, at least occasionally, each and every aircrewman attached to the unit. By doing this, he assures homogeneity of training and projects command involvement. Moreover, he receives first-hand information and indications of the strengths and weaknesses of his aviators. Regarding command discipline, just about everyone who touched on the subject emphasized the absolute necessity to eliminate the weak players and encourage the strong ones. If a pilot knows he will not remain within a professional community by demonstrating unprofessional habits, then motivation generally follows. Conversely, if unprofessional conduct, poor flight discipline, and shoddy work are tolerated, everyone suffers. In short, it is a command decision to eliminate the poor performer, and it must be supported at higher echelons.

"Of those individual programs that indicate real progress in accident prevention, selected ones considered by the commanding officers of units attached to COMFITAEWWINGPAC are listed below (not in any particular order of ranking):

- "**A lot of flying.** This is the best insurance against accidents. It must be remembered, however, that too much flying can lead to complacency.
- "**Wide dissemination of incident and accident information.** This keeps everyone informed and aware.
- "**Realistic scheduling** of individual and squadron commitments. If you can't make the sortie within 15 minutes, cancel. Don't play catch up and rush. Don't overcommit a Charlie-4 squadron.

"Provide the necessary guidance to your pilots so that they alone, and not some ground agency, have control of the airplanes. Reaffirm the fact that flying is their primary duty, and that if they master their art, they will be so evaluated. Most importantly, place responsibility and accountability in the hands of those most able to exercise it – the CO, and flight and division leaders. **Hold them accountable.**" ◄

SURVIVAL/POSTEJECTION PROCEDURES

In-water Liferaft Deployment Sequence A-4, TA-4, A-7, TA-7, and S-3 Configuration (No G-suit for S-3 crews)

By CDR Jack Greear, MSC, USN
APTU – Norfolk
NAVREGMEDCEN, Portsmouth, VA

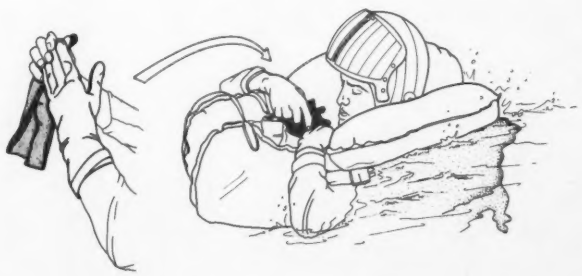
THE following scenario describes step-by-step procedures for in-water liferaft deployment and inflation utilizing the RSSK-8 with ACC-377. This is the second of two possible techniques, the first having been published last month. The emergency egress situation is a low-altitude ejection, over water, in which ejection systems have functioned normally. The aircrewman has been able to inflate his LPA and release his parachute upon water entry but has not had time to deploy his liferaft.

Although the RSSK illustrated is a RSSK-8 with ACC-377, other single-handle RSSKs may be deployed in the water in the same manner. The raft release handle will always be on the right-hand side. Its actual location, however, may vary fore and aft from the illustrations. In addition, on Martin-Baker systems, the parachute container will not be attached to the RSSK.

These techniques are being published in advance of the NAVAIR-00-80T-101 Survival/Egress Manual so they will get to the fleet as soon as possible and so the project manager may receive any possible feedback on these procedures before NAVAIR-00-80T-101 is finally printed. Please forward any comments to: Commanding Officer, Naval Regional Medical Center (Code APTU-230), Portsmouth, VA 23708. ◄

1. Raise visor.

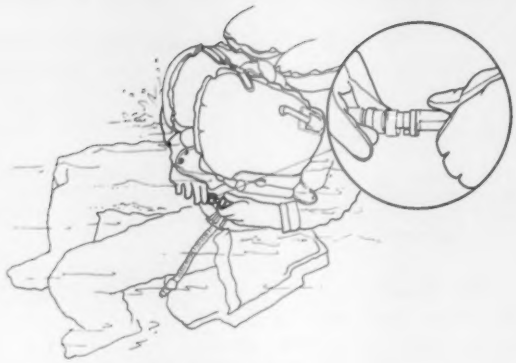
2. Remove oxygen mask.



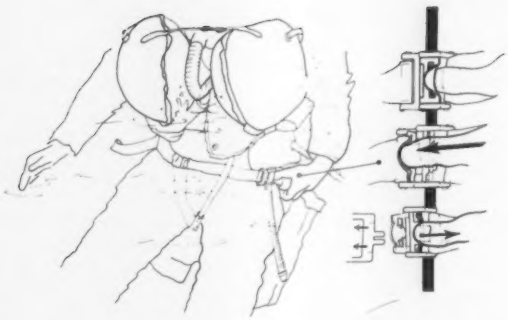
3. Remove gloves, if desired, and stow for later use.

Continued

NATOPS Evaluators for this technique were Mr. Ray Smith, Naval Aviation Schools Command (Code 43) and PR1 R. W. Jablonowski, APTU Norfolk.



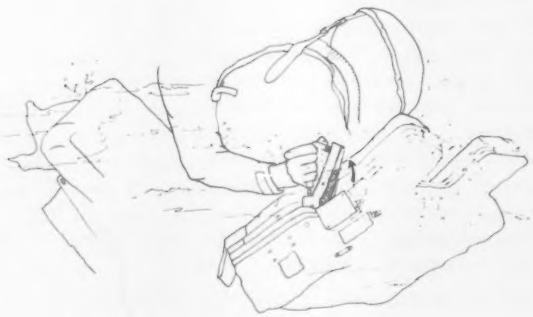
4. Disconnect O_2 fitting.



5. Release left side of RSSK.

6. Pull RSSK around to the front.

7. Position RSSK, then grasp raft release handle.



8. Pull raft release handle up and back until free of kit.

Artwork by Carolyn Dinicola Fawley.

9. As the RSSK begins to open, the parachute container will be free of the kit and should float away.

10. Pull the LR-1 liferaft out of the kit and remove the raft cover.

11. Locate the CO_2 cylinder and then grasp the valve actuating line in one hand and the liferaft in the other. **(Warning: Do not hold CO_2 cylinder, as it becomes quite cold when discharging.)**

12. Pull the valve actuating line sharply to inflate the liferaft.

13. Liferaft inflating.

LETTERS
to the editor

Passing Control

China Lake, CA – With reference to an item in the WEEKLY SUMMARY of 16-22 November 1980 on the transfer of control between pilots, OPNAVINST 3710.7J does not clearly state the language to be used between the pilots upon transfer of control.

I am a former U. S. Army flight surgeon, and the standard procedure in the Army is for the pilot receiving control to state fully, "I have the controls of this aircraft." Admittedly, there may be a scenario where even this may be inadequate, but I think that some such procedure ought to be adopted in the Navy.

LCDR Robin Datta, MC, USNR
NRMC Long Beach Branch Clinic

• Para 608 of OPNAVINST 3710.7J (General NATOPS) requires that control of the aircraft be passed in a positive manner, then discusses several ways to do it. The point made by LCDR Datta was an agenda item at last year's General NATOPS conference. Attempts to establish standard phraseology for passing control, however, were not considered to add anything significantly helpful to the existing requirements.

Should LCDR Datta desire, para 102 of General NATOPS gives the instructions for submitting routine change recommendations.

Hot Seat!

Bonita, CA – I read Maj Poley's letter in the DEC '80 issue about the "...and then there were none" (JUL '80) incident with special interest.

As a young sailor, then stationed at NAS Denver (the intended destination of the flight), I was involved in the recovery of two of the aircraft in this episode. With the obvious exception of the tragic loss of one pilot's life, the whole fiasco had many humorous aspects to it. One of these (now) is the fact that I was assigned to guard the aircraft that ended up taxiing into the town square, and I spent the night sitting in the cockpit on an armed ejection seat! Hell, nobody had ever told me about those things in 1955!

Perhaps, at this late date, there is still a moral to this story – never assume that the other guy knows what you may think is obvious.

Robert L. Lawson, Editor
The Hook

• It seems that the subject incident involved a good portion of the local civilian community. It's lucky that Mr. Lawson or someone else wasn't hurt in this historical fiasco.

Re: NOV '80 Issue

MCAS Futenma – LCDR Shipman's proposal to "modify the formal incident report system to allow a provision for anonymity" should be implemented immediately. This idea has been bounced around for years and nobody has acted on it. The accident rate seems to be stuck and I would not be surprised to see it drop measurably within 2 years of establishing anonymous incident reports.

The hypothermia article – outstanding!

Maj N. L. McCall
H&MS-36, MAG-36

Re: "The Office Obstacle Course" DEC '80

Norfolk, VA – How true the contents of Derek Nelson's article are! If anyone has had the opportunity to work in some of the antiquated buildings that government

workers abide in on a daily basis, well, only they know the hazards that exist. In the meantime, while offices are safely upgraded, we civil servants and active duty stalwarts must be constantly aware of the "Office Grim Reaper" that lurks in such places as the erudite Mr. Nelson depicted. His fine analysis of the office and its related safety problems should be a good reminder to those that do not take safety seriously.

E. A. Homer
Safety/Security Specialist

P.S. – Maybe the answer is *Hazardous Duty Pay* for office workers!

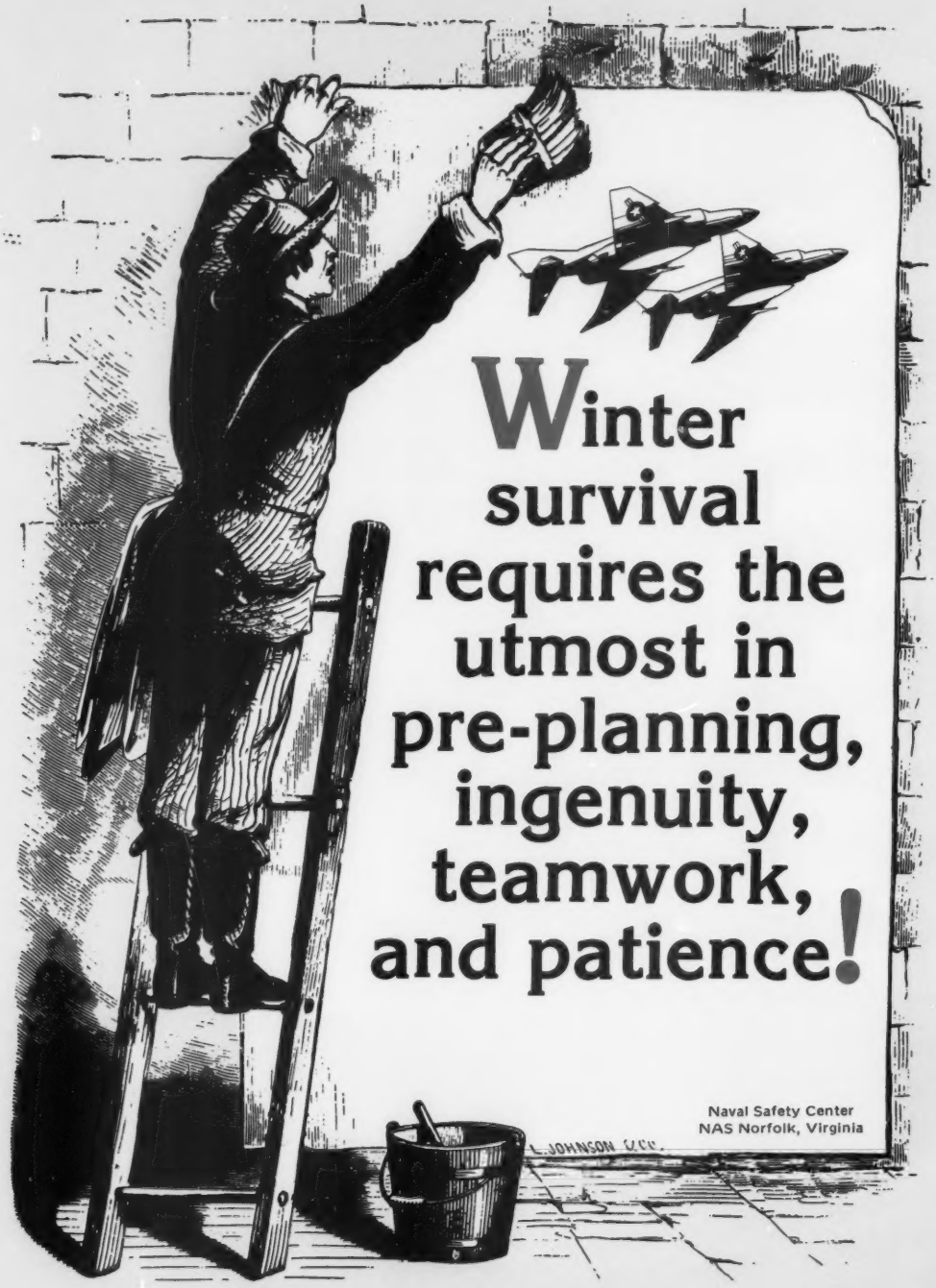
Re: DEC '80 Letter "P-3 Photo Wanted"

NAS Whiting Field – Chief Cloud may as well have asked for a barrel of chicken lips as a photo of a P-3 flying over a carrier. Most P-3 types are well versed in the true meaning of distant support when it comes to operating with carriers. The only time I've ever felt safe in visual range of a carrier is seeing one at Pier 12 while on an approach to NAS Norfolk.

LCDR Pete O'Brien

APPROACH welcomes letters from its readers. All letters should be signed though names will be withheld on request. Address: APPROACH Editor, Naval Safety Center, NAS Norfolk, VA 23511. Views expressed are those of the writers and do not imply endorsement by the Naval Safety Center.

☆U.S. GOVERNMENT PRINTING OFFICE: 1981—735-003/26


Winter survival requires the utmost in pre-planning, ingenuity, teamwork, and patience!
Naval Safety Center
NAS Norfolk, Virginia

FLATHATTING can be a ball!
You can see first hand the
Startled creatures,
The canyon wall,
And, quite often, the guy
Who made them all !

Poster idea contributed by LT Don Swain, HSL-33.